



RF



ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. LXV NO. 8

PO Box 3454, Tustin, CA 92781

August 2024

The Prez Sez... By Nicholas AF6CF



Now we are in August, and this means that there is less than a year to the next ARRL Field Day. We hope that next year will be as spectacular and this one was. After a couple of years, we finally had a GOTA (Get On The Air) station running almost the full 24 hours of the contest. And now we offer VE sessions for license testing, so you can get your HAM radio ticket or even upgrade it. The exams are one hour before the General meeting time. Contact any of the Club board members or just walk in.

We have big plans for the rest of the year with the upcoming Club Auction in October and a couple of excellent presentations for this month, September and November meetings. Last month's 12V presentation was a big success. Thanks Kevin and Kevin for a very fine dissertation and items donation. For the next couple of presentations, we will use Zoom as the speakers are either "on line" or just on video. Speaking of Zoom, we have such a low turnout that we are considering if we should discontinue it. If you cannot attend in person, consider using the Zoom application in your computer so you don't miss our activities. Thanks to the generosity of our members and speakers, the Club has a lot of items to give away at an opportunity drawing this month. We also have many items from SK estates, so we are selling them online and many are going to be available for the October Auction. As usual, I look forward to an eyeball contact with you all at the next General Meeting.

73 DE AF6CF

NEXT GENERAL MEETING

**Bob Brehm
AK6R
presents**

"All About RFI"

**August 16th, 2024, at 7pm
at the**

**American Red
Cross**

**Orange County Chapter
Santa Ana, Room 208**

NEXT BOARD MEETING

Saturday, September 7th, 2024

See www.w6ze.org for more info

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Monthly Events

Membership Meetings*

Time: 7:00 PM
When: 3rd Friday of each Month
Red Cross Orange County, Room 208
600 N Parkcenter Dr, Santa Ana
(Replaced by the Christmas Party
in December.)

Board Meetings

First Saturday of each Month
*Board will handle Club business now
IN-PERSON.*

Club Nets (Listen for W6ZE)

10M ~ 28.375 MHz SSB

Wed- 7:30 PM - 8:30 PM
Net Control: Corey, KE6YHX
Alternate Net Control: AJ, KN6WNO

2M ~ 146.55 MHz Simplex FM

Wed- 8:30 PM - 9:00 PM
Net Control: Corey, KE6YHX
Alternate Net Control: AJ, KN6WNO
Echolink Node: KK6TRC-L

75M ~ 3.883 MHz LSB

Tue @ 8:00 PM
Net Control: Corey, KE6YHX

Other Nets

**Catalina Amateur
Repeater Association (CARA)**
147.090 MHz (+0.600 MHz) No PL
Monday - Friday
9:00AM & 9:00PM
Prg. Director. Tom W6ETC
COME JOIN US

OCARC 2024 DUES:

*Membership period is:
1 January to 31 December*

Individual New or Renewal: \$30
Family New or Renewal: \$45
Teen New or Renewal: \$15

***New Member Dues** are prorated
quarterly and includes a badge:*
Additional Badges¹ \$3

Use one of our interactive online forms
to calculate current prices, join, renew, or
order badges:

<https://www.w6ze.org/FormsShortcut.html>

¹ \$3 or less + mailing. See form.



OCARC 2024 ANNUAL RADIO AUCTION

**LIVE AUCTION TO BUY & SELL NEW/USED
HAM RADIO EQUIPMENT**

FRIDAY OCTOBER 18th, 2024

7:00 PM

Doors Open for Registration at 6:00PM

Held at the

American Red Cross

600 Parkcenter Drive

Santa Ana, CA

Second Floor Rm #208

→ SELLERS/BUYERS CAN REGISTER AT 6:00PM

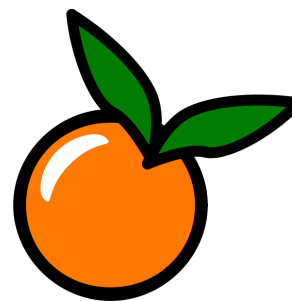
FOR RULES & INSTRUCTIONS GO TO WWW.W6ZE.ORG

Some of the proceeds benefit the Orange County Amateur Radio Club



W6ETC 07/2024

IN THE KNOW WITH KN6WNO



Issue 4



Being Prepared

Welcome to the realm of amateur radio, affectionately known as ham radio, where enthusiasts don't just tinker with frequencies but often find themselves intertwined with the ethos of preparedness.

At its core, ham radio is about connecting. It's about the magic of sending signals across vast distances, transcending borders, and making friends in the ether. Enthusiasts, or "hams," as they're colloquially known, revel in the technical skill required to set up and operate their stations. Yet, beneath the surface, there lies a deeper camaraderie, born from a shared passion for exploration and experimentation.

The Prepper Connection:

Enter the world of prepping – a subculture built on the principles of readiness for any eventuality. Preppers stockpile supplies, hone survival skills, and cultivate self-sufficiency. While often misrepresented in the media as extreme doomsday prophets, the reality is more nuanced.

As the world becomes increasingly interconnected yet vulnerable to disruptions, the roles of ham radio operators and preppers become ever more crucial. Their ethos of self-reliance, coupled with a commitment to service and community, offers a beacon of hope in uncertain times.

So, the next time you tune into the static-filled frequencies of the amateur radio bands, remember that behind every call sign lies not just a hobbyist but a guardian of resilience, ready to bridge the gap between preparedness and possibility.



Heathkit of the Month #125:
by Bob Eckweiler, AF6C



Heath IT-12 (Quick) Refurbishment
Visual - Aural Signal Tracer

Introduction:

The club recently received a donation of ham related equipment. Among the donations was a Heathkit IT-12 Signal Tracer (**Figure 1**). Our club president passed it along to see about minor refurbishment for possible sale at the club auction. There were only about two-weeks before the general meeting when I planned to return it.

The IT-12 was originally featured in HotM #9 (Oct 2008)¹.

External Inspection:

A visual inspection of the donated IT-12 showed it to be in fairly good shape, with only one small blemish on the front panel, and no dents on the panel or cabinet. The screw heads on the front and rear had lost their shine and the plating was discolored and powdery. The top of the cabinet was corroded, as if some chemical had dripped onto it, and the paint was flaking off. The exposed metal showed signs of rust, especially along the welded seam near the top rear (**Figure 2**). The bottom, back and sides of the cabinet were in good shape with only minor blemishes to the paint. The Heath series label was attached to the rear panel. It read (Model:

Here is a link to the index of Heathkit of the Month (HotM) articles:

http://www.w6ze.org/Heathkit/Heathkit_Index.html

1. Notes begin on page 11



Figure 1: The refurbished IT-12 Showing the probe, bright 1629 eye-tube and later style knobs. The probe features an authentic #477-3 Solder less probe tip replacing the broken one on the unit as received.

IT-12; Series: 09545). One problem noticed was the tip was broken off the probe. These tips are used on numerous Heathkit probes and break easily. A few such probes are in-house awaiting a new tip which had, until while writing this article, no known source.

Comparing this kit to the IT-12 featured in the 2008 HotM article, which was purchased in the summer of 1966 from the Heathkit Electronic Center in Redondo Beach CA, it was noticed the knobs were similar in style but different. The old knobs had a white

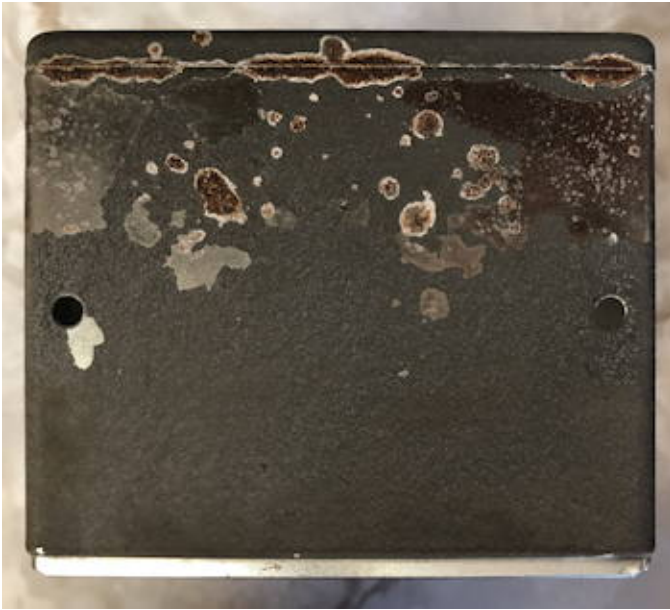


Figure 2: While most of the cabinet looked very good with no dents, the top suffered from some chemical damage and the paint started flaking and the bare steel began rusting.

pointer while the later knobs just had a black line on the silver disc. (**Figure 3**). Other than that, they looked identical externally.

Internal Inspection:

Upon completing the external inspection, the instrument was removed from its cabinet and examined. The kit was quite clean inside with minimal dust, which was brushed and vacuumed away. It was noticed, almost immediately, that the Sarkes Tarzian Model 50 (#57-13) selenium rectifier was missing, and in its mounting hole was bolted a vertical two terminal strip that held a 1N2071 (#57-27) silicon diode. Obviously, either this was a user modification or a Heath production change. Also noticed was the power transformer part number (#54-64-24). The transformer in the older IT-12 is just (54-64). In most cases the ending -24 identifies a transformer with a dual primary for 120/240 V; However this transformer, so marked, had only six leads; two primary (black), two filament (green) and two high voltage (red).



Figure 3: Left: a drawing shows the assembly of the knob (with setscrew in place) #462-139 and pointer #463-27 on early units. Right: Later units had a knob with a painted line #462-187 and no setscrew, which was supplied separately.

When someone refurbishes a Heathkit, or most any other older electronic device, one of the first things done is to replace electrolytic and tubular paper capacitors. The IT-12 has only one of each: A three-section electrolytic can capacitor (50/50 μF @ 150 V and 20 μF @ 25 volts), and a 0.01 μF 400 V capacitor. The latter was of the newer radial mylar type; again, whether this was a user modification or a Heath production change was still to be discovered. The three-section can capacitor needed to be evaluated. This part is now quite expensive, if even available; but it can be re-stuffed with a fair amount of effort or replaced with three separate capacitors.

With the instrument out of its cabinet, a series of resistance measurements were taken. Besides the values given on the schematic, safety checks of the primary and AC power cord to ground were taken. The IT-12 has no bypass capacitors between the AC line and ground. If it had, they would have been replaced with new safety capacitors of the same capacitance. All resistances were reasonable², and with time short, there appeared no need to replace resistors unless operation was affected.

Checking the Can Capacitor:

Using an empirical formula, given in the IT-11 manual - page 27, one can calculate max-

imum expected electrolytic leakage current as a function of rated voltage and capacitance. Using the formula, the maximum leakage for each of the 50 μF 150V sections is 1.3 mA. The 20 μF 25 volt section calculates to 0.55 mA.

The 50 μF 150 V Can Sections:

Using a Heathkit IP-32 HV power supply and a 3,500 Ω 10 watt series resistor³, voltage was applied to the two paralleled 150 V capacitors. The voltage was applied in approximately 25 volt increments. This was done in steps, always being sure the current remained below 2.6 mA. After reaching the next voltage plateau the capacitor was allowed to sit at that voltage until the current stabilized and then left at that voltage for several hours before going to the next voltage. This process reforms the electrolytic plates in the capacitor if it hasn't been used for a long period. When 150 volts was reached and the capacitor was allowed to stabilize, the current was under 1 mA for the paralleled capacitors – less than half the maximum allowed leakage rate. The capacitor was allowed to sit under full voltage for 24 hours. Current measurements during this process were made by measuring the voltage across the 3,500 Ω resistor (3.5 volts per mA).

The 20 μF 25 V Can Section:

Less emphasis was placed on this section as it could easily be replaced with a small modern electrolytic right at the socket of V2. It was checked for capacitance and leakage with an IT-11 Capacitor Checker.

Initial Power-On Evaluation:

Time to give it the smoke test! The IT-12 was plugged into a Heathkit IT-1 Isolation Transformer, which had been set to output 115 VAC. The tubes had been removed and checked on an EICO 667 tube tester. When

the POWER switch was turned to ON, there was no smoke or report, and the fuse in the IT-1 remained happy! A small mechanical 60 Hz hum could be heard from the power transformer – a common occurrence⁴. A quick check showed 140, or so, volts across the two filter capacitors. Power was switched off, tubes were installed, and the unit was turned back on. The tube filaments lit up, and soon the 1629 eye tube lit up a bright green, a good sign as this WWII relic tube has become expensive. The speaker switch was tuned ON and a hum was heard from the speaker. Touching the broken tip of the probe caused the hum to increase significantly. Clipping the ground lead to the tip caused the hum to diminish, but not to the extent expected. Touching the metal probe housing caused the hum to increase, even with the tip grounded. Also, just handling the probe caused static and intermittent operation, especially around the probe's AUDIO – RF slide-switch. Evidently there were problems within the probe.

Probe Disassembly and Repair:

The black back of the probe was removed and slid up the RG-58 coax lead. There is supposed to be a short extension of the braid that gets pinched between the black plastic and the metal probe shield. It was missing. The probe shield was not grounded, and as such, it became more a hum antenna than a shield. A temporary jumper between the coax and the shield quieted down the hum, but the intermittency was still present.

The probe was totally disassembled. Removing the small circuit board and switch was difficult as the switch had not been seated fully into the board and passage through the shield required a lot of patience and difficult unsoldering. How it was installed is a mystery. Once free, the slide switch was disassembled,

cleaned and reassembled. (refer to HotM #M01)⁵. The probe was reassembled and a (slightly bent) probe-tip, from a Heath PK-3 scope probe awaiting repair, was temporarily installed in place of the broken tip. **Figure 7**⁶ is an exploded view of the probe (Page 11).

An Updated IT-12 Manual Found:

Originally, the manual used for reference on this restoration was the one that came with the IT-12 discussed in the earlier HotM article. It was #595-570 with a date of 22 Feb. 1963, over 60 years ago. The last IT-12s were sold near the end of 1977, and between them at least five revisions of the manual and possibly the kit had occurred. A clue was a new crystal diode, used in many later Heathkits, was found in the probe. This set off a search for a later manual. Embarrassingly, one was found in my own folder of old Heath PDF manuals. It was not complete, but better than most partial manuals; it had construction and parts detail. The manual number was #595-570-06. A quick scan resolved a lot of questions between the early and later models:

1. The selenium rectifier (#57-13) was changed to a silicon diode (#57-27) and a 2-lug vertical terminal strip (#431-51) was added. It mounted in the existing hole of the selenium rectifier and provided tie points for the two silicon diode leads.
2. The crystal diode used in the probe was changed from a 60 volt Hughes HD2257 (#56-4) to a 90 volt 1N191 (#56-26).
3. The 0.01 μ F 400 V tubular paper capacitor (#23-34) was replaced with a radial mylar capacitor (#27-36) of the same rating.
4. The 0.001 500 V ceramic capacitors were changed from class II Z5S $\pm 22\%$ to class II Z5P $\pm 10\%$ ⁷. This change was probably done more for consolidation than design. The

Z5S was marked (NLA) “no longer available”, and Heath’s price difference was about a tenth of one cent between the two.

5. The two knobs were changed from a knob (#462-139) with attachable white pointer (#463-27) to a knob (#462-187) with a line instead of pointer. Setscrews came with the early knobs, but separate 8-32 x $\frac{1}{4}$ setscrews (#250-43) were provided for the later knobs.
6. The body part of the 5 five-way binding posts (#427-2) were changed to one with a longer mounting stud (427-3) to allow an additional nut to be added to securely lock the binding posts in place.
7. The #22, solid copper vinyl insulated, (no color specified), hookup wire (#344-1) supplied with most early kits became obsolete and was replaced in this kit with #22, solid copper, vinyl insulated, white, hookup wire (#344-59).
8. Various hardware were changed including the clamp that holds the eye-tube, and the 2-56 self-tapping screws used in assembling the probe. An additional 6-32 x $\frac{3}{8}$ binder head machine screw was supplied to mount the terminal strip for the new silicon diode; as were five additional 6-32 nuts to use on the binding posts.

Obviously, there had been a fair amount of changes over the production life of the IT-12. The paper capacitor and selenium rectifier, items normally replaced in a basic refurbishing, were eliminated by Heathkit production changes. Older units should be updated.

When Heath replaced the selenium rectifier with a silicon diode all they did was to remove the rectifier, which mounted to the chassis with a #6-32 stud potted to the unit. the stud went

Note 7

through the chassis and held a two-lug terminal strip on the other side. Heath removed the rectifier and used a #6-32 screw to hold a vertical 2-lug terminal strip (**Figure 4**) above the chassis in place of the rectifier, as well as to continue to hold the other two-lug terminal strip below the chassis. The silicon diode was wired between the lugs on the strip that replaced the rectifier and the wires now went to those lugs instead of the rectifier.



Figure 4: 2-lug vertical terminal strip

It is interesting to note that Heath didn't add a resistor to drop the voltage, like so many Heath enthusiasts claim is needed when they switched from selenium to silicon rectifiers in numerous kits.

Voltage Measurements:

After the probe was repaired, voltage measurements were made using a Heathkit IM-13 VTVM. The voltages for C7, and V1 through V3 are listed in **Table I**. The first of the two voltages shown is as marked on the schematic and the second voltage is the actual measured voltage. As the filaments all lit up normally, filament voltage was not measured. To improve hum reduction the filament circuit is not grounded except at the filament center-tap of V1. These measurements were taken at a line voltage of 119 V with the IT-12 connected directly to the AC outlet.

Operation:

A Heathkit IG-72 Audio Oscillator was connected to the IT-12 probe (switched to AUDIO) and set to 100 mV and 400 Hz. A clean tone was heard in the speaker and by varying the gain control on the IT-12 the volume was adjustable from undetectable up to beyond uncomfortable. There was plenty of gain, though Heath never specified gain or levels.

IT-12 Voltage Measurements

C7 A/B 50/50μF 150V	V2 12CA5 Pentode
C7 A [square] 138/146V	V2 pin 1 (K) 6/6V
C7 B [triangle] 114/120V	V2 pin 2 (G) 0/-0.1V
C7 C 20 μF 25V	V2 pin 3 (fil)
C7 C [none] 6/6V	V2 pin 4 (fil)
	V2 pin 5 (nc)
V1 - 12AX7 Section B	V2 pin 6 (S) 114/120V
V1 pin 1 (P) 76/83V	V2 pin 7 (P) 138/136V
V1 pin 2 (G) -.5/-0.5V	
V1 pin 3 (K) 0/0V	V3 1629 Eye Indicator
V1 - 12AX7 Filaments	V3 pin 1 (nc)
V1 pin 4 (fil)	V3 pin 2 (fil)
V1 pin 5 (fil)	V3 pin 3 (P) 15/18V
V1 pin 9 (fil CT) 0/0V	V3 pin 4 (T) 138/146V
V1 - 12AX7 Section A	V3 pin 5 (G) -.4/-0.45V
V1 pin 6 (P) 80/84V	V3 pin 6 (none)
V1 pin 7 (G) -.1/-0.06V	V3 pin 7 (fil)
V1 pin 8 (K)	V3 pin 8 (K) 0/0V
0.6/0.54V	

Notes:

Filament voltages were not measured.
 [] = Capacitor terminal ID
 (G) = Control Grid
 (K) = Cathode
 (P) = Plate

(S) = Screen Grid
 (T) = Target
 (fil) = Filament pin
 (fil CT) = Fil center-tap pin
 (nc) = no connection
 (none) = no pin

Table I

The probe was then switched to the RF position and connected to the 1st IF transistor of a Heathkit SW-717 receiver, tuned to a local broadcast station. The audio from the received program could be heard in the IT-12's speaker. Again the volume range was ample.

Replacing the Probe Tip:

After some research, the original Heathkit probe tip (# was found in a 1963 Arrow Electronics catalog. It is an H.H. Smith (Now Abbatron) #124 (See **Figure 5**). After two (not inexpensive) tries, more than a dozen of them were purchased at a decent price. **Figure 6**

shows, from left to right, four probe tips:

1. The broken IT-12 tip.
2. An equivalent tip that is press-fit instead of screw-in (one of the attempts at finding the correct probe tip). It is missing the knurled collar due to thread damage.
3. The bent tip originally from a Heath PK-3 probe.
4. The new H.H. Smith 124 probe tip.

Cabinet Paint:

The cabinet needed painting. Most of it was in good shape, but the top paint was badly damaged. The paint is textured to make it more difficult to match. The top was sanded and treated with Rust Reformer⁸. That was followed by a coat on the top with Krylon textured antique Bronze paint to restore the texture. The whole cabinet was then painted with London Fog paint⁹. This color is a close match for the "Pre-Classic"¹⁰ style, but a browner gray than the existing paint.

Comments:

While this was a quick refurb job, the finished product should be serviceable for a lot more years. While no resistors were replaced, a couple were slightly out of their 10% tolerance range. They would have been in a full refurbishment, though it is most likely no one would

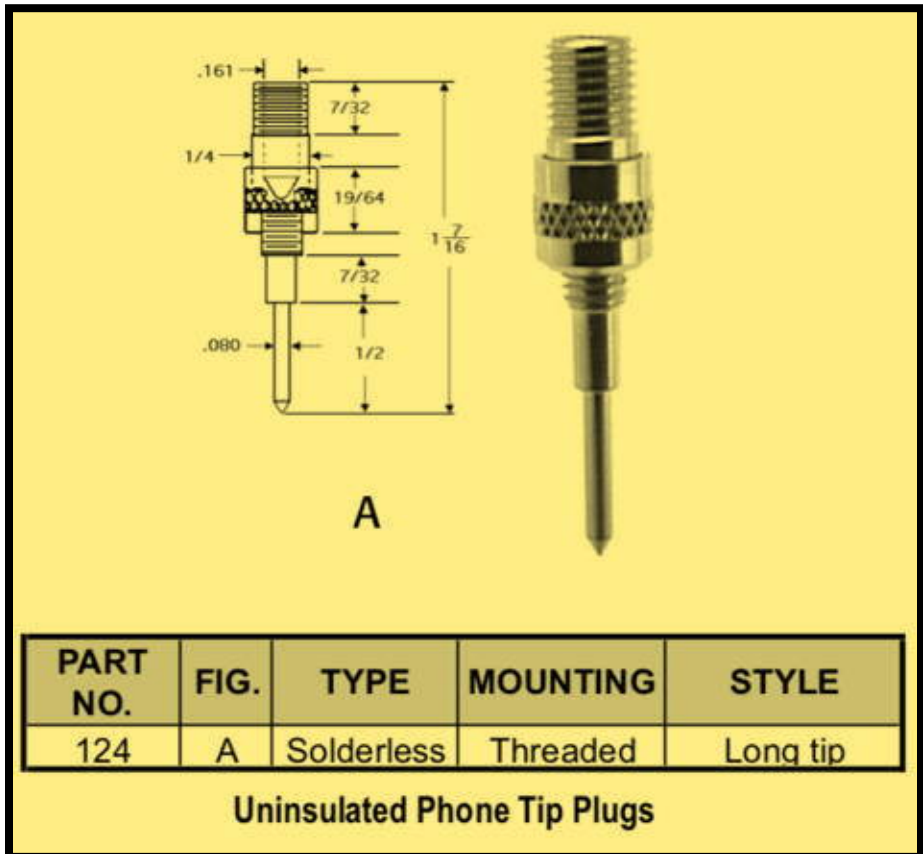


Figure 5: H.H. Smith (Abbatron) 124 Probe tip (Heath #477-3). No solder is necessary. The collar unscrews and the wire is wrapped around the probe body. Then the collar is screwed on and it clamps the wire tightly in contact with the probe body.



Figure 6: See Text

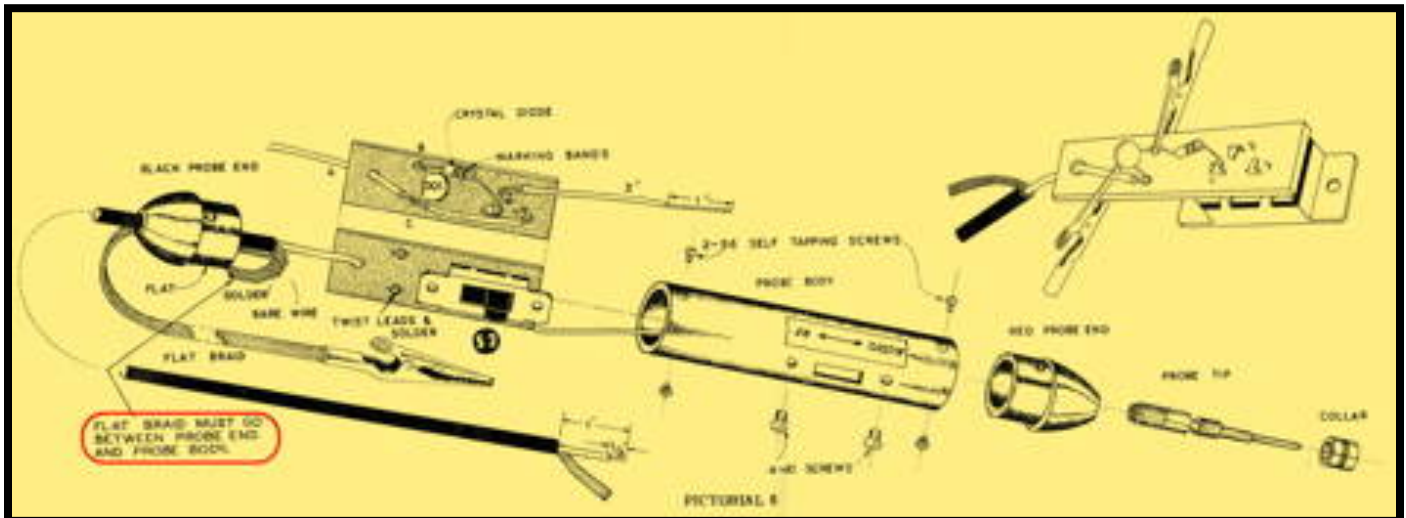


Figure 7: Probe drawing from the IT-12 Illustration booklet. A larger image can be found online ⁶. The note in red shows the braid that was missing on the unit being restored.

notice a resulting effect. **Figures 8 & 9** are internal views of the IT-12.

The change from a selenium rectifier to a silicon diode was most likely the result of cost

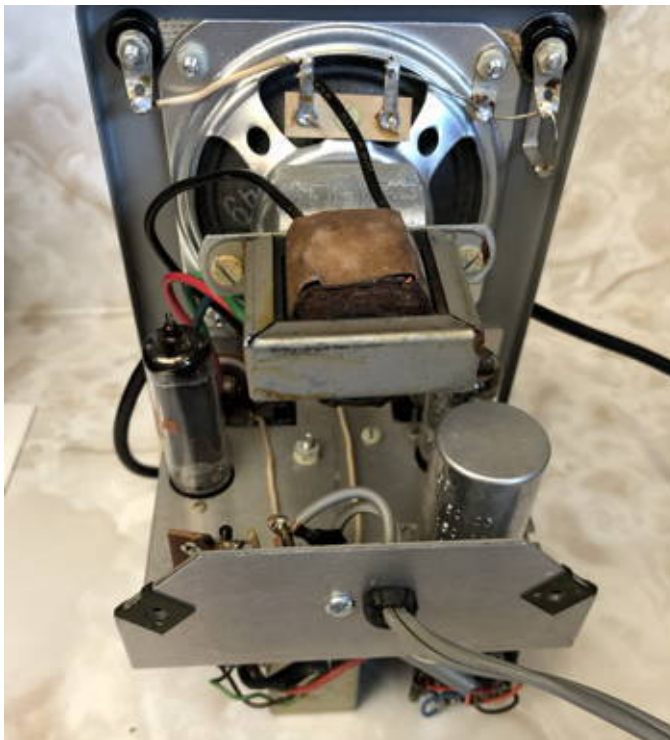


Figure 8: Upper rear view of uncased IT-12. Note audio output transformer behind speaker and tree section electrolytic can capacitor in foreground to the right.

Notes:

1. Heathkit of the Month #008 IT-12 Signal Tracer
https://www.w6ze.org/Heathkit/Heathkit_008_IT12.pdf
2. Only resistances shown on the schematic were measured initially. Later resistors were checked as best they could while in circuit. None were significantly out of tolerance.
3. This resistor would limit the current to a safe level should the capacitor short.
4. This can often be cured by injecting a mixture of shellac thinned with denatured alcohol between the laminations and the frame and letting it dry. Usually, several applications are necessary.
5. https://www.w6ze.org/Heathkit/MiscArticles/Heathkit_Article_M01.pdf
6. A larger version of Figure 6 is available at
<https://www.w6ze.org/Heathkit/Sch/IT-12Fig7.jpg>
7. See: Choosing Disc Capacitors:
<https://www.w6ze.org/btt/BTT048.pdf>
8. Rust-o-leum Rust Reformer, available at most hardware stores such as ACE, Lowe's and Home Depot.
9. Rust-o-leum "2X", London Fog gray.
10. See "Heathkit Test Equipment Products" by Chuck Penson WA7ZZE, pages iv - vi, ISBN 9780615991337

Notes for HotM #125 (IT-12 Refurb) 8/2024

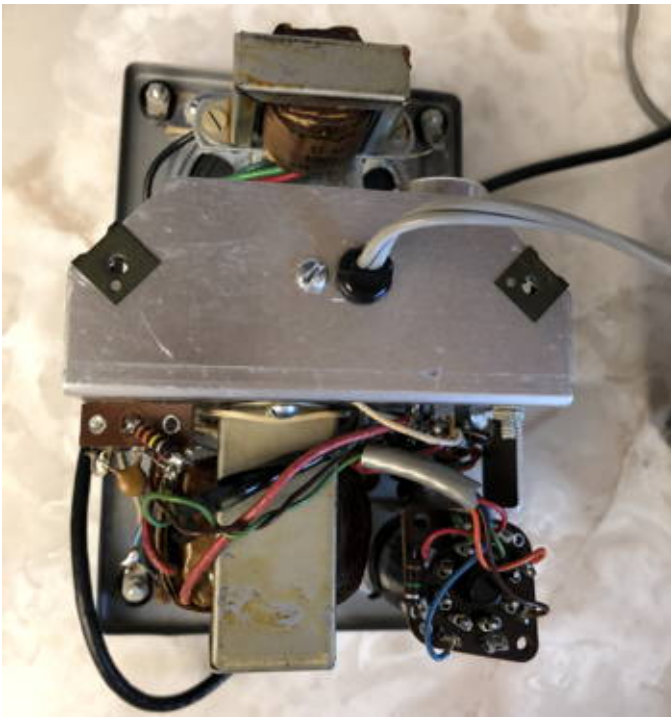


Figure 9: Lower rear view showing power transformer at lower center and 1629 eye-tube socket at lower right.

savings and/or availability of the selenium rectifier. This part #57-13 was used in many kits including the V-7A and performs well if only supplying a few mA. In the IT-12, current draw can be high at high volume levels, so its replacement is warranted.

All nine external bolts were replaced with new #6-32 hardware of the same length ($\frac{3}{8}$ ") and slotted pan head design.

General:

There will probably not be an HotM article next month due to a busy schedule coming up. Look for the next article in October. Meanwhile if there is a Heathkit you'd like to be featured feel free to email me.

73, from Bob, AF6C



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? PUZZLER ?

YES! WE HAVE A WINNER !!!

Dan - KI6X sent in the correct answer !!! Next month we'll print the answer. That gives one more month for others to solve the Puzzler. Meanwhile here's a new clue. Previous clues are in **Blue**. The current clues are in **Red**.

Here's the May Puzzler:

Find two three-digit numbers that, when multiplied together, have three three-digit partial products and a five-digit product. And the twenty (20) resulting digits consist of two each of the digits 0 to 9.

For this month's **double clue**, four additional numbers (8 total) have been revealed in their correct positions. The puzzler has been solved so this is your last chance to submit an answer. Next month, the answer will be revealed,

X7X Multiplicand

X2X Multiplier

X1X Partial product 1

3X8 Partial product 2

3XX Partial product 3

=====
X00XX Product

Send answer to puzzler@w6ze.org.

73, from WA6WZO & AF6C



? PUZZLER ?



Amateur Radio License Testing Now Available!

W6ZE now offers license exam sessions before our general meeting at the same location at 5:30 PM new licensees and upgrades. The cost is \$15.

Requests for testing should be sent to Ken Simpson, w6kos@w6ze.org, or by calling 714-651-6535.



Cash Flow

1/1/2024 through 7/31/2024

Category	1/1/2024- 7/31/2024
INFLOWS	
Badge Income	6.00
Donations - Field Day	223.00
Dues, Membership (Paypal 2025)	30.00
Dues, Membership (Paypal) 2024	1,370.96
Dues, Membership 2024	500.01
Field Day Food Income	240.00
Opportunity Drawing -Monthly	226.00
Sale Of Equipment	311.36
TOTAL INFLOWS	2,907.33
OUTFLOWS	
Bank Checks (Refill)	23.20
CA Statement Of Info filing	20.00
Field Day - Propane	57.07
Field Day Equipment	131.94
Field Day Food	253.89
Field Day Rental - Tent	310.00
Flowers Expense	50.00
Guest Speaker Meal - Exp	203.50
Historian Expenses	91.90
PayPal Fee	72.66
Refreshments Expense	43.61
Software License	24.00
Storage of Equipment - Ann Millard	325.00
Web Site Hosting	175.00
WFD - Food	62.91
WFD - Propane	40.85
WFD Flowers	34.00
WFD Rental - Tent	170.00
TOTAL OUTFLOWS	2,089.53
OVERALL TOTAL	817.80

August Board Meeting

OCARC Board Meeting Minutes for: Aug 3, 2024, The OCARC Board meeting was held at The Streamliner Lounge, 186 N. Atchison St., Orange, and called to order by President Nicholas Haban AF6CF at 8:18 am. A quorum of Board Members was in attendance.

Treasurer report – Cash Flow has improved with the sale of excess equipment. CD rolling over to 11-month term. Auction – treasurer on vacation at that time but Ken and others will cover that function.

Membership report – the club has 96 members with 14 members being new to the club.

Secretary – Search for 2025 Board Members. Nomination Committee, Janet, Ron and Tim M. Will be asking members at August meeting to see if they will consider serving.

Publicity – Preparing a “Net Control Operations” presentation. Will be printing Auction flyers.

Newsletter – Aug AJ KN6WNO, Sep – Nicholas AF6CF, Oct – Corey KE6YHX, Dec – Ken W6HHC

Speakers –

Aug – Bob Brehm, AK6R Palomar Engineers.

Sep – MFJ presentation but may be changed.

Oct – Auction

Nov – Elections

Dec – Party Friday Dec. 6th

VE Sessions – Ken Simpson will be offering license testing before our Aug meeting.

New business

Activities – Opportunity drawing at conclusion of Aug General Meeting.

2025 Schedule – Next Board will decide General Meeting changes for May when Red Cross room unavailable. Also, April will need to be considered since third Friday falls on Good Friday.

Good of the Club

N6GP – will share Radio Roving setup at a future General Meeting.

Recently a ham fell in his home and could not get up to reach a phone but he did manage to get to his HT and used a Papa System repeater to have someone successfully reach 911 for him.

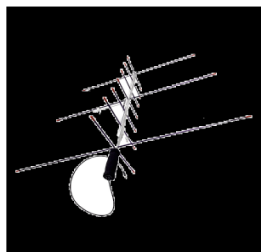
Adjournment occurred around 9:45 am.



OCARC Equipment

Did you know OCARC has ham equipment set aside for our members?! We have a combination of club owned equipment and member owned equipment that is accessible for you to check out for a temporary project, experiment, or to test out equipment before you purchase it yourself!

Please reach out to an OCARC Board Member and tell us about your project.



UPCOMING SPEAKER PRESENTATION

WHERE: Orange County ARC

WHEN: August 16, 2024, ZOOM

WHO: Bob Brehm AK6R

TOPIC: ABCs of RFI for hams



Is your transmitter the SOURCE of RFI affecting electronic devices in your own house or your neighbor's house? Would you like to find a quick and easy solution so you can have more time to operate and enjoy ham radio rather than troubleshooting RFI issues?

Are you the VICTIM of RFI from your own electronic devices or from devices in your neighborhood? Do you want to reduce your receiver noise floor so you can hear local contacts and more DX?

If you answered YES to either of these questions, then you should attend this presentation where you will learn how to make ham radio more enjoyable by eliminating problems caused by RFI.

Topics in this talk include:

- Fundamentals of RFI – identifying symptoms, pinpointing causes & applying simple cures
- What's a ferrite and how to choose & buy the right ferrite for your RFI issue
- How to use ferrites to solve the #1 RFI problem shared by all hams using HF radios
- How to choose and use ferrites to solve transmitter RFI problems in your home or neighborhood
- How to choose and use ferrites to reduce receiver noise and hear more DX

During the presentation you will see many examples of feed line chokes, baluns, ununs, and various practical applications of ferrites for AC/DC power lines, computer interconnect cables, transceivers, linear amplifiers, home theater systems, etc.

Bring your questions and pay attention to win one of the virtual prizes at the end of the talk.

General Meeting July 19th, 2024

President Nicholas Haban AF6CF started the meeting promptly and proceeded with the Pledge of Allegiance.

Janet KL7MF introduced this evening's presenters, Kevin Karamanos WD6DIH from "12VoltPower.com and US distribution of Comet Antennas" and Kevin Zanjani KI6DHQ from Bioenno Power. The presentation was "Twelve Volt Power Batteries and Accessories."



Just prior to a short break the guests and visitors introduced themselves.

After the break the meeting continued with club business.

Board Meeting

A quorum of club officers was in attendance.

Because of the abundance of donated items, we will have a drawing at the August General meeting.

Also, there are many items that the club has received for the October Auction. We have some flyers prepared by Tom W6ETC which will be printed so that they can be distributed at TRW Swap meet, HRO and other locations where interested parties gather. The auctioneer will be Bob Brehm, AK6R.

Field Day discussion – Ron Mudry W6WG, 2024 Field Day chair answered questions and said he believes we will be at the same location next year. GOTA station operator did a great job of getting visitors engaged with radio. Thanks Doug – W6FKX

Treasurer's Report – club is on the plus side and doing okay.

Membership Report – 98 members include 14 new for this year.

Publicity Report – Club net had a visitor from Missouri operating locally this last week. He was invited to our meeting today and attended the presentation portion of the meeting. We had a person who visited Field Day and joined the club and was also here for the presentation portion.

Need Newsletter Editors – September, November and December.

We need contributions of photos and/or videos the club webpage W6ZE.org. Also, still hoping to get more pictures from both 2024 and 2023 Field Days.

There will be VE License Testing Exams offered at 5:30 before our next General Meeting on Aug 16th, walk ins allowed but give a shout out if you know you will be there and want to test.

Good of the Club – VHF contest starts tomorrow July 20th.

Motion to Adjourn – made, seconded, and passed.

RadioActivity

August 2024

Upcoming Activities:

August

- **North American QSO Party, SSB:** 1800 UTC Saturday August 17 through 0559 UTC Sunday August 18.
- **Run for the Bacon QRP Contest:** 2300 UTC Sunday August 18 to 0100 UTC Monday August 19.
- **W/VE Islands QSO Party:** 1200 UTC Saturday August 24 through 0300 UTC Sunday August 25.
- **World Wide Digi DX Contest:** 1200 UTC Saturday August 24 through 1200 UTC Sunday August 25.

September

- **WAE DX Contest, SSB:** 0000 UTC Saturday Sept. 14 through 2359 UTC Monday Sept. 15.
- **ARRL September VHF Contest:** 1800 UTC Saturday August 14 through 0300 UTC Monday September 16.
- **North American Sprint, CW:** 0000 UTC to 0400 UTC Sunday September 8.

* Indicates club entries are accepted

** Indicates team entries are accepted

Note: When submitting logs for ARRL Contests indicate your club affiliation as "Orange County ARC CA"

October

- **California QSO Party**

1600 UTC Oct. 5 through 2200 UTC Sunday Oct. 6.

Note: When submitting logs for CQP indicate your club affiliation as "Orange County ARC"

State QSO Parties:

- **Maryland-DC QSO Party:** 1400 UTC Saturday August 10 through 0400 UTC Sunday August 11.
- **Hawaii QSO Party:** 0400 UTC Saturday August 24 through 0400 UTC Monday August 26.
- **Ohio QSO Party:** 1600 UTC Saturday August 24 through 0400 UTC Sunday August 25.

- **Kansas QSO Party:** 1400 UTC Saturday August 24 through 0200 UTC Sunday August 25 and 1400 UTC through 2000 UTC August 25.
- **Colorado QSO Party:** 1300 UTC Saturday August 31 through 0400 UTC Sunday Sept. 1.
- **Tennessee QSO Party:** 1700 UTC Sunday Sept. 1 through 0300 UTC Monday Sept. 2.

Repeating Activities:

- **Phone Fray** Every Tuesday night at 0230Z to 0300Z
- **SKCC** Weekend Sprintathon (Straight Key CW) on the first weekend of the month after the 6TH of the month. 1200 Sat. to 2359Z Sunday.
- **SKCC** Sprint (Straight Key CW) 0000Z to 0200Z on the 4th Tuesday night (USA) of the month.
- **CWops** Every Wednesday 1300 UTC to 1400 UTC 1900 UTC to 2000 UTC and Thursday 0300 UTC to 0400 UTC
- **K1USN Slow Speed Test:** (CW, 20WPM Max.) Every Friday 2000 UTC to 2100 UTC Every Sunday night at 0000 UTC to 0100 UTC Monday
- **ICWC Medium Speed Test:** (CW, 25WPM Max.) Every Monday 1300 UTC to 1400 UTC 1900 UTC to 2000 UTC and Tuesday 0300 UTC to 0400 UTC

OCARC Club Nets:

- **75 Meter Net:** Every Tuesday night at 8:00 pm to 8:30 pm Local Time. SSB 3.883 MHz
- **10 Meter Net:** Every Wednesday night at 7:30 pm to 8:30 pm Local Time. SSB 28.375 MHz
- **2 Meter Net:** Every Wednesday night at 8:30 pm to 9:30 pm Local Time. FM Simplex 146.55 MHz

Other Nets:

- **Net-AT-9:** Wellness & Support Monday thru Friday 9:00 am and 9:00 pm Local Time 147.090 MHz (+600 MHz) No PL

Other Links:

- [ARRL Contest Calendar](#)
- [VOACAP Online for Ham Radio](#)

Send an email to Ron W6WG, w6wg@w6ze.org to have your favorite activity or your recent RadioActivity listed in next month's column.

W6ZE SUBMITTED FIELD DAY 2024 RESULTS

6A Class

Band	CW	Phone	Digital	Total	%
80	72	0	0	72	1
40	604	178	9	791	14
20	1036	1267	0	2303	41
15	854	1045	0	1899	34
10	148	187	125	460	8
6	0	6	22	28	0
2	0	43	0	43	1
70	0	15	0	15	0
SAT	0	1	0	1	0
Total	2,714	2,742	156	5,612	100
GOTA		105			

Total score from QSOS: 16,694

Bonus points: 2,235

TOTAL 18,929

Band-and/or Mode W6ZE record since 1968 in **RED**

*Note: Tim N6GP believes the ARRL web submittal calculation overstated our score, because GOTA contacts were counted twice. The score above is corrected.

Nice work on Field Day, everyone!





The **ORANGE COUNTY AMATEUR RADIO CLUB, INC.**

RF - VOLUME 65 ISSUE 8 - August 2024

P.O. BOX 3454

TUSTIN, CA 92781-3454



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